



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,651	03/01/2002	Brent Townshend	01-185-A	7884

7590 12/04/2002

Matthew J. Sampson  
McDonnell Boehnen Hulbert & Berghoff  
32nd Floor  
300 S. Wacker Drive  
Chicago, IL 60606

EXAMINER

SMITS, TALIVALDIS IVARS

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No. <b>10/087,651</b>	Applicant(s) <b>Brent Townshend et al.</b>
Examiner <b>Talivaldis Ivars Smits</b>	Art Unit <b>2654</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on \_\_\_\_\_.

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-40 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-40 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on Mar 1, 2002 is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some\* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 and 5

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5, 7, 8, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Dmitry Rtischev *et al.* (U.S. Patent 5,634,086, issued May 27, 1997).

As per claims 1, 2, 5, 7, 36, and 37, Rtischev *et al.* teach:

- a means for hearing at least one person who is repeating items (spoken-language instruction apparatus employing speech recognition with user reading words from a written script from an inherent database, Abstract; user and microphone, or user and telephone, Fig. 1, elements 12 and 16, or elements 12 and 14, respectively); and
- means for comparing the items with a transcription and thus measuring intelligibility (speech recognizer using nonlinear HMM speech models, Fig. 3, element 112; preselected script, element 114; score set, element 120; reading errors, col. 3, lines 43 and 47).

As per claim 8, the “reading errors” (col. 3, lines 43 and 47) of Rtischev *et al.* inherently include at least word substitutions, for an error in reading a word could cause the ASR to

interpret it as a different existing word (e.g. a Japanese reader using Rtischev *et al.*'s apparatus to learn English might pronounce "frame" as "flame", which would cause the ASR to recognize the spoken word as the latter).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 6, 8, 11-18, and 24-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rtischev *et al.* as applied to claims 1, 2, 5, 7, 8, 36, and 37, above.

As per claims 3, 4, 8, 11-13, 15-18, and 24-33, Rtischev *et al.* do not teach a listener or a plurality of people capable of listening to the speaker. However, the examiner takes Official Notice that it is centuries old and notoriously well known to have teachers listen to speakers (students) so as to evaluate the intelligibility of their speech in terms of reading errors. Therefore, it would have been obvious for an artisan at the time of invention to have also people listening, at least during the training mode for the Automatic Speech Recognizer (cf. Fig. 3, elements 102 and 104), to make sure the ASR does not make unreasonable "recognitions" or rejections.

The rest of the limitations were discussed in connection with the rejection of claims 1, 2, 5, 7, 8, 36, and 37, above.

As per claim 14, Rtischev *et al.* do not teach selecting listeners based on certain background characteristics. However, it would have been obvious for an artisan at the time of invention to select listeners that have extensive background speaking knowledge of the language being learned because they would be best able to determine the intelligibility of someone trying to speak the language.

5. Claims 9, 10, 19, 20-23, 25, 34, 35, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rtischev *et al.* as applied to claims 1, 2, 5, 7, 8, 36, and 37, above, in view of Charles Lewis *et al* (U.S. Patent 5,059,127, issued October 22, 1991).

As per claims 9, 10, 19, 20-23, 25, 34, and 35, while Rtischev *et al.* teach evaluating an error count intelligibility score (reading errors, col. 3, lines 43 and 47), they do not evaluate difficulty of the items and ability of a listener, nor doing this using Item Response Theory. However, Lewis *et al.* do (col. 1, line 63 through col. 2, lines 1, 16-26, and 42-43, with Figure 1A).

It would have been obvious for an artisan at the time of invention to do this because Lewis *et al.* teach that IRT “allows creation of a test in which different individuals receive different questions, yet can be scored on a common scale” as well as “permits determination in advance of

test administration of the level of ability and the accuracy with which ability has been measured” (col. 2, lines 31-36).

The rest of the limitations were discussed in connection with the rejection of claims 1, 2, 5, 7, 8, 36, and 37, above.

As per claim 38, Rtischev *et al.* do not teach a database containing data from previous evaluations. However, Lewis *et al.* teach retaining data from previous “testlets” and “sequentially administering testlets ... until a pass/fail decision can be made” (Abstract), thus suggesting retaining results of previous intelligibility evaluations (testlets) for later continued evaluation. It would have been obvious for an artisan at the time of invention to do this, to avoid having to administer all the testlets in a single sitting.

As per claim 39, Rtischev *et al.* teach evaluations using data selected from at least speaker responses and items (col. 3, lines 11-17).

As per claim 40, Rtischev *et al.* suggest use of nonlinear artificial neural net models for speech recognition (see reference to Kim *et al.* under “Other Publications” on the front page, top of second column).

#### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine

grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-40 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-9, and 11-15 of copending Application No. 09/311,617. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim obvious variations of the claims in the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Conclusion***

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or FAXed to:**

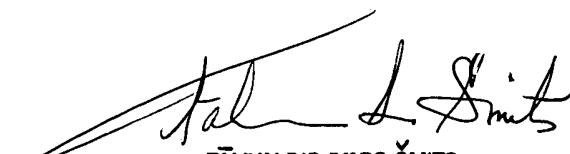
(703) 872-9314 (please label *formal* communications  
“OFFICIAL”; please label *informal* or draft communications,  
“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner  
should be directed to the examiner, Talivaldis Ivars Smits, whose telephone number is (703) 306-  
3011. The examiner can normally be reached Mondays-Fridays from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,  
Marsha D. Banks-Harold, can be reached on (703) 305-4379. The facsimile phone number for  
Technology Center 2600 is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application should be  
directed to the Technology Center 2600 customer service, whose telephone number is (703) 306-  
0377.



TALIVALDIS IVARS SMITS  
PRIMARY EXAMINER